

## **REMARKS**

The drawings were objected to. The references to PMOS and NMOS transistors were removed from the claims.

Claims 2, 3, 5 and 6 were objected to under 37 CFR 1.75(c) as being in improper form. Claims 2, 5, and 6 were cancelled. Claim 3 was amended.

Claims 1-8 stand rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-3, 7 and 8 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Claim 1 and 3 were amended to overcome the 35 U.S.C. 112 rejections. Claims 2, and 4-8 were cancelled. Amended claim 1 contain the limitation "said emitter and base diffusions jointly defining an emitter:base ratio of near-junction dopants, measured at 75% and 125% of the emitter-base junction depth, which is greater than two to one". The points 75% and 125% of the junction depth are defined with respect to Figure 4 on page 7, lines 15-21. the doping concentration at these points are clearly defined quantities. The ratio is simply the doping concentration at 75% divided by the doping concentration at 125%. The limitation in the claims simply states that this ratio is greater than two to one. This is neither vague nor indefinite under the current interpretation of 35 U.S.C. 112 and is clearly support in the disclosure.

Claims 1-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tomassetti in view of Kosaka et al.

Claim 1 comprises the limitation of "said emitter and base diffusions jointly defining an emitter:base ratio of near-junction dopants, measured at 75% and 125% of the emitter-base junction depth, which is greater than two to one". The Tomassetti patent does not

disclose any doping concentrations. It is therefore impossible for the Tomassetti patent to disclose a ratio for dopant concentration. The examiner stated in the action dated March 20, 1993 that the Tomassetti patent discloses the above limitation. If the examiner wishes to stand by this statement then the application respectfully requests that the examiner point out with particularity the section or sections in the Tomassetti patent that discloses such a ratio. The above ratio is not disclosed in the Kosaka et al. patent and therefore the Tomassetti patent and the Kosaka et al. cannot be properly combined to reject amended claims 1 and 3.

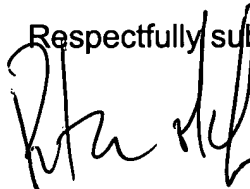
In light of the above, it is respectfully submitted that the present application is in condition for allowance, and notice to that effect is respectfully requested.

While it is believed that the instant response places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with Markings to Show Changes Made."**

To the extent necessary, Applicants petition for an Extension of Time under 37 CFR 1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees, to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Peter K. McLarty', with a long horizontal line extending to the right.

Peter K. McLarty  
Attorney for Applicants  
Reg. No. 44,923

Texas Instruments Incorporated  
P.O. Box 655474, MS 3999  
Dallas, TX 75265  
(972) 917-4258

**Version with Markings to Show Changes Made**

1 (Amended). An integrated circuit, comprising:

[NMOS transistors in P-wells,]

[PMOS transistors in N-wells, and]

at least one PNP bipolar transistor [having] , comprising:

an emitter diffusion which has a doping profile [which] that combines [said] a [P-wells with P+ source diffusions of said PMOS transistors] P-well and a P+ diffusion;[,] [and]

a base diffusion comprising a N-well that [which] at least partly underlies said emitter diffusion[, and which has a doping profile which is at least partly the said as said N-wells;] wherein

said emitter and base diffusions jointly defining an emitter:base ratio of near-junction dopants, measured at 75% and 125% of the emitter-base junction depth, which is greater than two to one.

3 (Amended). The integrated circuit of Claim 1[, 4, 7,] further comprising a blanket P-type diffusion component having a peak concentration depth more than twice that of said [p-well] P-well.